## REMARKS

This amendment is responsive to the non-final Office Action of October 2, 2009. Reconsideration and allowance of claims 1-15 and 17-21 are requested.

### The Office Action

Claims 1-4, 8-10, 12, 13, and 15 stand rejected under 35 U.S.C. § 103 over Allen (US 2002/0097239) as modified by Gilligan (US 5,374,942).

Claim 5 stands rejected under 35 U.S.C. § 103 over Allen as modified by Dobbelaar (US 6,538,672).

Claim 6 stands rejected under 35 U.S.C. § 103 over Allen as modified by Gargi (US 6,915,489).

Claim 7 stands rejected under 35 U.S.C. § 103 over Allen as modified by Takabayashi (US 2003/0158476).

Claims 11 and 14 stand rejected under 35 U.S.C. § 103 over Allen as modified by Sezaki (US 6,078,313).

Claim 16 has been cancelled.

Claims 17-20 do not stand rejected on art and are understood to contain allowable subject matter.

Claim 21 is newly presented.

### Summary and Background

There are a plurality of coordinate systems inherent in the present application and the prior art. In the embodiment in which the array of images is associated with three attributes, each attribute can be thought of as being associated with one of mutually orthogonal x-, y-, and z-axes as shown in Figure 3 of the present application. When scrolling along an x-axis, the subset of display images move horizontally along the display screen. When scrolling in a y- direction, the subset of images moves vertically along the display screen. When scrolling along the z-axis, images in successive ones of the other layers 5 in Figure 5 are displayed.

To scroll along the x-axis, one moves a manipulation unit or input device in an x- direction. When one wants to scroll along the y-axis, one moves the

input device in a y- direction, orthogonal to the first. However, manipulation units or input devices, such as a mouse, touch screen, track ball, joy stick, or touch pad are constrained by their construction to one plane. Such devices can readily indicate scrolling along the x- and/or y-axes, for example, by moving the input device in a corresponding x- and/or y- direction.

The difficulty arises as to how to use these two-dimensional manipulation units or input devices to cause scrolling along the orthogonal z-axis.

Gilligan, cited by the Examiner, indicates scrolling along the z-axis by rotating the mouse in circles.

By distinction, the present application describes moving the mouse or other input device along a diagonal or an imaginary z-axis between and in the plane of the x- and y- directions.

The Examiner asserts that it is a mere choice of design whether to move the mouse or other input device in circles or along a diagonal or imaginary z-axis to control scrolling along a z-axis. For the reasons set forth below in greater detail, the applicant disagrees.

**The Gilligan Reference**

As the Examiner concedes, "Gilligan does not explicitly teach a method of scrolling the z-axis in response to moving the mouse in a diagonal direction...." To address this shortcoming of Gilligan, the Examiner refers the applicant to claim 17 of US 5,313,229, also to Gilligan. First, Gilligan '229 has not been applied against any of the claims. Second, the fact that claim 17 of Gilligan '229 is not limited to the circular motion patterns for designating movement along the z-direction as illustrated in Figures 7c-7f of Gilligan '942, does not mean that Gilligan '942 discloses or teaches every possible movement of a mouse in order to scroll along a z-axis. To the contrary, it is submitted that Gilligan '942 only discloses and teaches that which Gilligan '942 discloses and teaches. As the quote from page 5 of the Office Action set forth above indicates, Gilligan does not teach scrolling the z-axis in response to moving the mouse in a diagonal direction.

The applicant has and continues to challenge the vague assertion of that which is well-known pursuant to MPEP §2144.03 and have repeatedly asked the

Examiner to provide an appropriate reference to support his assertion to the effect that a diagonal line is well-known in the present context and call upon the Examiner to provide a reference which supports such assertion.

**MPEP § 2144.03**

Pursuant to MPEP § 2144.03, the applicant again and continues to traverse the Examiner's assertion regarding that which is a mere matter of choice or well-known and put the Examiner to his proofs to cite a reference showing that the presently claimed movement of the input unit or mouse in a direction between the x- and y-directions, particularly a diagonal, is either well-known or an obvious choice of design in the present context.

It is submitted that the Examiner's failure to cite such a reference in response to repeated requests under MPEP § 2144.03 should be taken as strong and persuasive evidence of non-obviousness, hence patentability.

**The Claims Distinguish Patentably Over the References of Record**

The Examiner is reminded that the failure of a reference which is not applied against any claim to claim a specific motion for a mouse in order to scroll along a z-direction does not cause the Gilligan '942 patent cited by the Examiner to disclose or teach every possible mouse movement which others might invent for designating the z-axis. Rather, Gilligan '942 only teaches that which is disclosed in Gilligan '942.

Claim 1 calls for scrolling along a z-axis by moving the manipulation unit along an imaginary z-axis which is positioned diagonally between and in a common plane with the x- and y- directions. By contrast, Gilligan moves the mouse in circles to scroll along the x-axis.

Moving in a diagonal direction is not a mere matter of choice relative to moving in circles. First, moving on a diagonal is more intuitive and easily understood by users. In common perspective drawings in which lines extending rearward or into the plane of the paper are depicted angling toward a vanishing point. When depicting three orthogonal coordinates in a planar presentation, the coordinate extending into the paper is frequently displayed as a sloped or diagonal line.

Moreover, with a diagonal line or an imaginary z-axis, the user intuitively knows which way to move the cursor along the line or to move the mouse in order to move deeper into or behind the plane of the paper or toward the viewer. By contrast, when rotating a mouse, it is not intuitively obvious to the user whether to rotate clockwise or counterclockwise in order to move toward or away from the viewer.

Further, a circular motion is a more complex motion and is more difficult to perform, particularly for users with limited manual dexterity or some physical disabilities. Erratic "attempted circular movement" could be interpreted as a series of x- and y- steps. Because the virtual z-axis includes a range of directions, as shown in Figure 6, very jerky or erratic motion which is substantially within the range and moves generally in the selected direction will be operative to scroll the images in the z- direction.

Because the presently claimed moving the manipulation unit along an imaginary z-axis positioned diagonally within a common plane with the x- and y- directions; whereas, Gilligan teaches moving the mouse in circles and because moving the mouse along a diagonal rather than in circles to connote movement into or out of the display claim is more intuitive, easier to differentiate between movement into or out of the plane, is more usable by users with limited manual dexterity and is more handicap friendly, it is submitted that claim 1 is not a mere matter of choice of design and distinguishes patentably over the references of record.

Accordingly, it is submitted that claim 1 and claims 2-7, 10-12, and 21 dependent therefrom distinguish patentably and unobviously over the references of record.

Claim 8 calls for a method in which the user selects an additional attribute by scrolling along a z-axis by moving a manipulation unit substantially parallel to an imaginary z-axis, which x- direction, y- direction, and imaginary z-axis are disposed in a common plane with the imaginary z-axis disposed between the x-direction and the y- direction. For the reasons set forth above, it is submitted that moving along an imaginary z-axis between the x- and y- directions is superior to moving a mouse in circles, rather than a mere matter of choice of design.

Accordingly, it is submitted that claim 8 and claims 9, 13-15, and 17 dependent therefrom distinguish patentably over the references of record.

No statutory based rejection of claims 18-20 has been made. Moreover, claim 18 calls for scrolling the displayed subset of images along a third dimension by moving an input device in a third direction with a range of directions disposed generally diagonally relative to first and second ranges of directions. Because moving an input device along such a third range of directions is superior to and not a mere choice of design relative to moving the input device in circles, it is submitted that claim 18 and claims 19 and 20 dependent therefrom distinguish patentably and unobviously over the references of record.

**Declaration of Petrus C.F. MAAS**

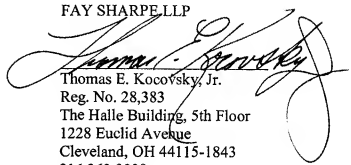
The applicant is submitting herewith a Declaration of the inventor, Petrus C.F. MAAS, which emphasizes the inventiveness of the claimed method and apparatus for designating scrolling along the x-, y-, and z-axes. With this additional showing of unobviousness, it is requested that the 35 U.S.C. § 103 rejections currently in place be withdrawn and that all claims be allowed.

## CONCLUSION

For the reasons set forth above, it is submitted that claims 1-15 and 17-21 distinguish patentably and unobviously over the references of record. An early allowance of all claims is requested.

Respectfully submitted,

FAY SHARPE LLP



Thomas E. Kocovsky, Jr.
Reg. No. 28,383
The Halle Building, 5th Floor
1228 Euclid Avenue
Cleveland, OH 44115-1843
216.363.9000

Direct All Correspondence to:
Yan Glickberg, Reg. No. 51,742
P.O. Box 3001
Briarcliff Manor, NY 10510-8001
(440) 483-3455 (tel)
(440) 483-2452 (fax)